

REMARKS

Applicant has carefully reviewed the Application in light of the Office Action mailed December 3, 2003. At the time of the Office Action, Claims 1-68 were pending in the Application. Applicant amends Claims 1, 14, 24, 34, 35, 36, 47, 57, 67, and 68. The amendments are not the result of any prior art reference and, thus, do not narrow the scope of any of the claims. Furthermore, the amendments are not related to patentability issues and only further clarify subject matter already present. Applicant respectfully requests reconsideration of the pending claims and favorable action in this case.

Information Disclosure Statement (IDS)

Applicant submitted an IDS dated December 1, 2003, that the Examiner has yet to identify as being acknowledged. Applicant asks the Examiner to review the references submitted in the IDS and, further, to indicate formally that the references were considered in the prosecution of the Application. Applicant recommends the use of a PTO-Form 1449 for this purpose.

Section 103 Rejections

The Examiner rejects Claims 1-68 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,201,601 issued to Vaez-Iravani et al. (hereinafter "*Vaez-Iravani*") and U.S. Patent No. 5,098,187 issued to Judge (hereinafter "*Judge*"). This rejection is respectfully traversed for the following reasons.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation; either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the prior reference (or references when combined) must teach or suggest all of the claim limitations.¹

It is respectfully submitted that Claim 1 is patentable over the art of record based on at least the third criterion of obviousness: none of the references alone or in combination teach,

¹ See M.P.E.P. § 2142-43.

suggest, or disclose each and every claim limitation. For example, Independent Claim 1, as amended, recites:

1. A portable handheld apparatus for measuring properties of a surface, comprising:
 - an electromagnetic energy system operable to generate a first beam of electromagnetic energy exiting a port of the apparatus at an angle that is near normal to a surface plane and to generate a second beam of electromagnetic energy exiting the port at an angle that is near grazing to the surface plane;
 - an integrator operable to receive portions of the first and second beams of electromagnetic energy that are reflected at the surface plane; and
 - a processor coupled to the integrator and operable to receive communication from the integrator associated with the reflected portions of the first and second beams of electromagnetic energy and to convert the communication to at least one reflectance characteristic value associated with the surface.

In contrast to the teachings of independent Claim 1, neither *Vaez-Iravani* nor *Judge* offer a “a portable handheld apparatus for measuring properties of a surface.” In addition, *Vaez-Iravani* and *Judge* fail to disclose “an integrator operable to receive portions of the first and second beams of electromagnetic energy that are reflected at the surface plane and a processor coupled to the integrator and operable to receive communication from the integrator associated with the reflected portions of the first and second beams of electromagnetic energy and to convert the communication to at least one reflectance characteristic value associated with the surface” as recited in Independent Claim 1.

In the Office Action, the Examiner failed to offer any disclosure that relates to a portable handheld apparatus. In addition, the Examiner incorrectly cited various portions of *Vaez-Iravani* that purportedly teach an integrator and a processor. (See Office Action, page 2: #2.) Evaluating *Vaez-Iravani* more closely reveals that these elements are not found therein. Specifically, *Vaez-Iravani* discloses the use of an ellipsoidal mirror 78 that focuses radiation toward a photomultiplier tube 80. (See *Vaez-Iravani* at Column 5, lines 51-53.) Clearly, this is not akin to an integrator operable to receive portions of the first and second beams of electromagnetic energy that are reflected at the surface plane and a processor coupled to the integrator and operable to receive communication from the integrator associated with the reflected portions of the first and second beams of electromagnetic energy and to convert the communication to at least one reflectance characteristic value associated with the surface, as recited in Independent Claim 1. Neither *Judge* nor *Vaez-Iravani* teach,

suggest, or disclose these elements. For at least these reasons, Independent Claim 1 is patentably distinct from *Vaez-Iravani* and *Judge*.

Applicants also wish to note that even if these elements of Independent Claim 1 were disclosed in the cited references, which they are not, the proposed *Vaez-Iravani-Judge* combination is still improper because these references do not appear to be analogous art. In examining a patent application, an Examiner must first determine what is analogous prior art for the purpose of analyzing the obviousness of the subject matter at issue.² In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.³ A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which because of the matter with which it deals, logically would have commended itself to an inventor's attention when considering his problem.⁴ *Vaez-Iravani* and *Judge* are not directed to the field of portable handheld instruments and therefore are not in Applicants' field of endeavor.

Even assuming for the sake of argument that *Vaez-Iravani* and *Judge* are analogous art, the rejection of Claims 1-68 would still be improper because the Examiner has not shown the required suggestion or motivation in *Vaez-Iravani*, *Judge*, or in the knowledge generally available to one of ordinary skill in the art at the time of the invention to combine these references. The mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.⁵ Thus, the mere fact that the teachings of one reference would improve the teachings of another reference, as the Examiner asserts, does not provide the required suggestion to combine. The U.S. Court of Appeals for the Federal Circuit has held that the fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggests the desirability of the modification.⁶ Nothing in *Vaez-Iravani* or *Judge* suggests or motivates the proposed combination, nor has the Examiner provided evidence that suggests or motivates the

² M.P.E.P. § 2141.01(a).

³ *In re Oetiker*, 977 F.2d 1443, 1446 (Fed. Cir. 1992).

⁴ *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992).

⁵ M.P.E.P. § 2143.01 (emphasis in original).

⁶ *In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992).

proposed combination.⁷ Speculation in hindsight that “it would have been obvious” to make the proposed combination because the proposed combination would be helpful is insufficient under the M.P.E.P.⁸ and governing Federal Circuit case law.⁹ The M.P.E.P. also confirms that this approach is improper and, thus, it should not be used here.¹⁰

Thus, obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.¹¹ The factual inquiry whether to combine references must be thorough and searching.¹² This factual question cannot be resolved on subjective belief and unknown authority;¹³ it must be based on objective evidence of record.¹⁴

Furthermore, the Examiner is precluded from modifying the combined teachings of *Vaez-Iravani* and *Judge* in an effort to teach the limitations of the pending claims because there is no indication in any of the references as to the desirability of making such modifications. The cited references must disclose the desirability of making the proposed modification.¹⁵ The fact that the modification is possible or even advantageous is not

⁷ If “common knowledge” or “well known” art is being relied on to combine the references, Applicants respectfully request that a reference be provided in support of this position pursuant to M.P.E.P. § 2144.03. If personal knowledge is being relied on to supply the required motivation or suggestion to combine, Applicants respectfully request that an affidavit supporting such facts be provided pursuant to M.P.E.P. § 2144.03.

⁸ See M.P.E.P. § 2145 X.C. (“The Federal Circuit has produced a number of decisions overturning obviousness rejections due to a lack of suggestion in the prior art of the desirability of combining references.”).

⁹ For example, in *In re Dembiczak*, 175 F.3d 994 (Fed. Cir. 1999), the Federal Circuit reversed a finding of obviousness by the Board of Patent Appeals and Interferences, explaining that evidence of a suggestion, teaching, or motivation to combine is essential to avoid impermissible hindsight reconstruction of an applicant’s invention:

Our case law makes clear that the best defense against the subtle but powerful attraction of hindsight obviousness analysis is *rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references*. Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.

175 F.3d at 999 (quoting *W.L. Gore & Assoc., Inv. v. Garlock, Inc.*, 721 F.2d 1540, 1553 (Fed. Cir. 1983)) (emphasis added) (citations omitted). See also *In Re Jones*, 958 F.2d 347 (“Conspicuously missing from this record is any evidence, other than the PTO’s speculation (if that can be called evidence) that one of ordinary skill in the herbicidal art would have been motivated to make the modification of the prior art salts necessary to arrive at [the claimed invention].”).

¹⁰ See M.P.E.P. §2145.

¹¹ See *Carella v. Starlight Archery and Pro Line Co.*, 804 F.2d 135, 140, 231 USPQ 644, 647 (Fed. Cir. 1986).

¹² See *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 USPQ 2d 1001, 1008 (Fed. Cir. 2001).

¹³ See *In re Lee*, 277 F.3d 1338, 1343-44, 61 USPQ 2d 1430, 1434 (Fed. Cir. 2002).

¹⁴ *Id.* at 1343, 61 USPQ 2d at 1434.

¹⁵ *In re Mills*, 916 F.2d 680, 682 (Fed. Cir. 1990).

enough.¹⁶ A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.¹⁷

With respect to the second criterion of non-obviousness, the Examiner has also failed to show a reasonable expectation of success for the proposed combinations. The combinations of *Vaez-Iravani* and *Judge* would not be capable of performing the operations required by the claimed invention. For example, there is no showing by the Examiner that the teachings of *Munter* could provide the portable handheld measuring apparatus identified above; nor is there any disclosure relating to the other elements identified in the pending claims in the analysis provided supra. The proposed combination (presumptively) attempts to combine divergent subject matter that has not been shown to be capable of operating according to any degree of predictability. The Examiner, without resorting to improper hindsight to look through the claimed invention, has not addressed the chance that the proposed *Vaez-Iravani-Judge* combination would have any success whatsoever: let alone a reasonable expectation of success as is required. Therefore, Applicant respectfully submits that the Examiner has failed to establish the second criteria for a prima facie case of obviousness.

If we again assume for the sake of argument that *Vaez-Iravani* and *Judge* are analogous art, and that there is the required suggestion or motivation to combine *Vaez-Iravani* with *Judge*, the proposed *Vaez-Iravani-Judge* combination would fail because the limitations specifically recited in the pending claims are not disclosed in each of the references, as discussed above. Accordingly, such an argument is flawed in that it does not satisfy the third criterion of obviousness, as identified in the analysis above.

Independent Claims 14, 24, 34, 35, 36, 47, 57, 67, and 68 recite limitations similar, but not identical, to those recited in independent Claim 1 with respect to disclosing a portable handheld apparatus. Therefore, these claims are also allowable, for example, for the same reasons as identified above. Additionally, the corresponding dependent claims from these independent claims are also patentably distinct for analogous reasons. Notice to this effect is respectfully requested in the form of a full allowance of all the pending claims.

¹⁶ See *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984).

¹⁷ *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). (See also M.P.E.P. §2141.02).

CONCLUSION

Applicant has now made an earnest attempt to place this case in condition for immediate allowance. For the foregoing reasons and for other reasons clear and apparent, Applicant respectfully requests reconsideration and allowance of the pending claims.

Applicant believes no fee is due. However, if this is not correct, the Commissioner is hereby authorized to charge additional fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts, L.L.P.

If there are matters that can be discussed by telephone to advance prosecution of this application, Applicant invites the Examiner to contact its attorney at the number provided below.

Respectfully submitted,
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